Yellowstone Basin Advisory Council
Meeting Minutes – Day 1, Thursday November 14th, 2013
Location: Montana State University – Downtown Campus - Billings

Members Present: John Beaudry –Stillwater/Sweet Grass, Mack Cole –Basin, Cal Cumin –Yellowstone, Paul Gatzemeier –Basin, Greg Lackman –Treasure, Dan Lowe –Big Horn, John Moorhouse –Yellowstone, Dave Mumford –Yellowstone, Jerry O'Hair –Park, Kay Peterman –Wibaux, Mike Penfold –Yellowstone, John Pulasky –Yellowstone, Dan Rostad –Sweet Grass, Brad Sauer –Basin, Shanny Spang Gion –Northern Cheyenne Tribe.

Others Present: Dale Anderson –Our Montana, Matthew Anderson –MSUB, Mike Backes –MT FWP, Barb Beck –Carbon, Bill Bergin –Musselshell-Ag, Joan Bergin –Musselshell-Ag, Denise Biggar –DNRC (Glasgow), Troy Blandford –Water Info, Andy Brummond –MT FWP, Pat Byorth –Basin, Chuck Dalby -DNRC (Yellowstone hydrologist), Lenny Duberstein –USBR, Vannatta Dwight – Lower Missouri River (LMR) BAC, Mark Ellison –DNRC (Yellowstone), Jill Frankfurter –USGS, Ken Frazer –MT FWP, Lorents Grosfield –Basin, Adam Haight –Northern Plains Resource Council, Deborah Hanson –Basin, Kristi Kline –LMR BAC, Rhonda Knudson –LMR BAC, Mike Lawler –LMR BAC, Peter Marchi –MDRP, Nicole McClain –Basin, Rusty Merritt –DNRC/Geospatial Solutions Inc., Scott Opitz –MT FWP, Kim Overcast -DNRC (regional manager), Greg Pederson –USGS, Mike Roberts –DNRC, Jim Robinson –DNRC (Yellowstone water planner), Alyson Rode –MSUB, Jennifer Schoonen –Blackfoot Challenge, Steve Stevens –Crow Tribe Apsaalooke, Eric VanderBeek –LMR BAC, Don Woerne –Basin.

BAC Members Not Present: David Galt –Basin, Nick Golder –Basin , Lynn Haidle –Prairie, Tom Osborne –Yellowstone, Roger Muggli –Custer, Boris Krizek –Yellowstone, Steve Pust –Richland.

Yellowstone Basin Advisory Council
Meeting Minutes – Day 2, Friday November 15th, 2013
Location: Montana State University – Downtown Campus - Billings

Members Present: John Beaudry –Stillwater/Sweet Grass, Mack Cole –Basin, Cal Cumin –Yellowstone, David Galt –Basin, Paul Gatzemeier –Basin, Nick Golder –Basin, Dan Lowe –Big Horn, John Moorhouse –Yellowstone, Dave Mumford –Yellowstone, Kay Peterman –Wibaux, Mike Penfold –Yellowstone, John Pulasky –Yellowstone, Dan Rostad –Sweet Grass, Brad Sauer –Basin, Shanny Spang Gion –Northern Cheyenne Tribe.

Others Present: Peggy Amos Nend –McCone-Ag, Dale Anderson –Our Montana, Matthew Anderson –MSUB, Jim Bauder –MSU-Bozeman, Barb Beck –Carbon, Bill Bergin –Musselshell-Ag, Joan Bergin –Musselshell-Ag, Andy Brummond –MT FWP, Chuck Dalby -DNRC (Yellowstone hydrologist), Lenny Duberstein –USBR, Vannatta Dwight – Lower Missouri River (LMR) BAC, Patrick Engel –Yellowstone-Reclamation, Jill Frankfurter –USGS, Carlin Hantz –Yellowstone-Student, Clayton Jordan –USBR, Lee Miller –Our Montana, Chris Murray –USBR, Mark Ockey –MT DEQ, Doug Oellerman –USBR, Kim Overcast -DNRC (regional manager), Donna Quick –McCone-Ranching, Jim Robinson –DNRC (Yellowstone water planner), Alyson Rode –MSUB, Steve Stevens –Crow Tribe Apsaalooke, Shawn Stump –Rosebud, Eric VanderBeek –LMR BAC, Don Woerne –Basin.

BAC Members Not Present: Lynn Haidle –Prairie, Boris Krizek –Yellowstone, Roger Muggli –Custer, Jerry O'Hair –Park, Tom Osborne –Yellowstone, Steve Pust –Richland.

- The Meeting Minutes are organized by topic with key points following in order to help facilitate the recommendations process in Phase III

- PowerPoint presentations from the meetings on November 14th and 15th can be accessed by clicking on the following link: http://dnrc.mt.gov/wrd/water_mgmt/state_water_plan/yellowstone/presentations/default.asp

Water Administration, Reallocation Tools and Drought Management

- The accessibility of water data provided to stakeholders via water information tools contributes to our cumulative knowledge and increased ability to manage water in times of water shortage and water excess (the water budget).
- Water allocation is greatly improved by gauges to measure water flow and the dissemination of gauge data to the public via websites.
- Gauges can also provide a continuous set of water data over long periods of time which helps hydrologists and other scientists to understand water supply and use.
- Lack of funding for particular gauges can result in gaps in data collection and an incomplete record of water flow in any given water basin (and hinder drought and flood management plans). Therefore continued funding for gauges is necessary for the maintenance of historic data to the present.
- District court judges knowledgeable about water rights are a necessary element to efficient water administration

Climate Science and Water Information Tools.

- Our climate is and continues to be variable. The future climate will fluctuate because of natural variability and warming – a combination of human-induced trends and natural variability (future climate = natural variability + warming).
- We cannot completely predict what these fluctuations will look like, but in a long trajectory we know it will be bumpy- and we should plan for this in our groups and water plans (Greg Pederson). When we think about how water is allocated we shouldn't look to static targets but rather 'moving' or 'shifting' targets (e.g. water policy should be flexible to account for this variability).
- There continues to be disagreements over trends and patterns but regardless, the importance of continuing to collect data over long periods of time (longitudinally) is necessary. Interpretations can change and so can methods to better assess data. But if we don't have the data, we can't use improved methods to analyze these trends.
- Montana has a water information system operated by the Montana State Library. Upgrading and improving this system is essential to informed and integrated water resource decision-making.

Improved Communication, Water Flow, and Conservation Efforts

- Multiple presentations point to improved water flow and improved conservation efforts when there is continued communication and an established trust between stakeholders as well as having a district judge that understands water rights (Patrick Byorth).
- If focus is drawn to making sure the river system as a whole is healthy, all stakeholders are more likely to benefit (Chuck Dalby).
- If people share with each other and work together, everyone benefits and deals with challenges as a unified front, rather than dealing with them individually (especially in times of water shortage).
- There needs to be less focus on the division of junior/senior water rights and the tension between these two interest groups. Agency and landowner support and engagement is also crucial for conservation efforts (Note: Mike Roberts on preservation of the fluvial arctic grayling -fish species- in Montana). In the Big Hole, participation from key senior water right holders is essential to successful reallocation of water under Montana's system of prior appropriation-.

Water Quality, Stream Chemistry and Ecology, Funding, and Data Collection

- Stream chemistry and ecology data from the Yellowstone River Basin is outdated – the last large-scale survey report was published in a 2004 report and used 1998 data (National Water-Quality Assessment (NAWQA) Program).
- More recent data collection has been substantially scaled back due to budget issues (2002-2012). There are also not enough site samples or site studies left to try and do a local study (Jill Frankfurter).
- Again, as with gauges, it is important to maintain funding for stream chemistry and ecology data collection so we can track long and short-term trends and patterns. There is a need for consistency in data collection – the same measurement techniques from the same sites over an extended period of time.

Industry and Water Quality

- Water quality in the Powder and Tongue River Basins is strongly influenced by energy resource development, specifically the Salt Creek oil field brine and Coal-bed methane (CBM) extraction activities. There is reasonable concern then for CBM extraction on water quality--- based on longitudinal data and water quality constituent (mineral) concentration analysis (Steve Sando).
- There is a clear rise in alkalinity in areas where CBM development continues in Period 2 (2001-2010) like Moorhead. Again, this highlights the importance of keeping and tracking data – the effects of industry on water mineral composition, pollution, etc.

Water Adjudication, Contracts with Tribal Nations, Communication

- There are contractual commitments that need to be met with the Crow Nation and the Northern Cheyenne (Clayton Jordan). An important aspect of the Crow Tribe Water

Rights Settlement Act of 2010 is to achieve a fair, equitable, and final settlement for the Crow Tribe and allottees (Doug Oellerman).

- Again, there is a need for improved communication between stakeholders, including tribal nations, and a focus on mutual interests in water management, gathering water use data, etc.

Comments and Notable Questions, Thursday meeting:

- Jim Robinson concluded the morning session on Thursday by noting that each of the presentations was included in the meeting proceedings because they provide a cross-section of how these water projects may be managed. Each project has unique situation and needs that have to be met (resources, collaboration and planning) and it takes individuals to do this work to make water sharing happen. It is all about optimizing use and strengthening the administration system. Each of the watersheds discussed, i.e., the Blackfoot and Big Hole, has created their own solution, how do we create our own?

- With regard to the Montana Water Information System (WIS) operated by the Montana State Library, **Mike Penfold** had a question for **Troy Blandford**. He noted that we have 700 miles of tributaries in the Yellowstone and asked whether the Montana WIS provides real-time data with the possibility of developing this for the Yellowstone? **Troy Blandford** answered yes, and that we (cumulative) should start thinking about moving state data onto the Montana State Library website, so that both USGS and state data are available to access.

Housekeeping, Friday meeting:

- The next Yellowstone Basin Advisory Council meeting is Friday December 13th, 2013. The first part of the meeting session will be dedicated to another set of presentations on topics of interest to council members. The rest of the meeting will be dedicated to discussing policy recommendations.

The dates for YBAC meetings in early 2014 were determined. The next set of meetings will be held on:

- ✓ Tuesday, February 25th 2014
- ✓ Tuesday, March 11th, 2014
- ✓ Tuesday, April 8th, 2014

If there are issues with these dates, please contact Jim Robinson.